



## Differentiating Instruction

Margaret Heritage

Olivia Lozano

Gabriela Cardenas

Alejandra Santini

*MontCAS*

Module 5

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Montana  
Office of Public Instruction  
Denise Juneau, State Superintendent  
opi.mt.gov

National Center for Research  
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## Formative Assessment Modules

- Module 1: Overview of Formative Assessment
- Module 2: Assessment Systems
- Module 3: Learning Progressions and Learning Goals
- Module 4: Planning Formative Assessment
- Module 5: Differentiating Instruction
- Module 6: Feedback
- Module 7: Student involvement
- Module 8: Changes in Practice

## Module 4

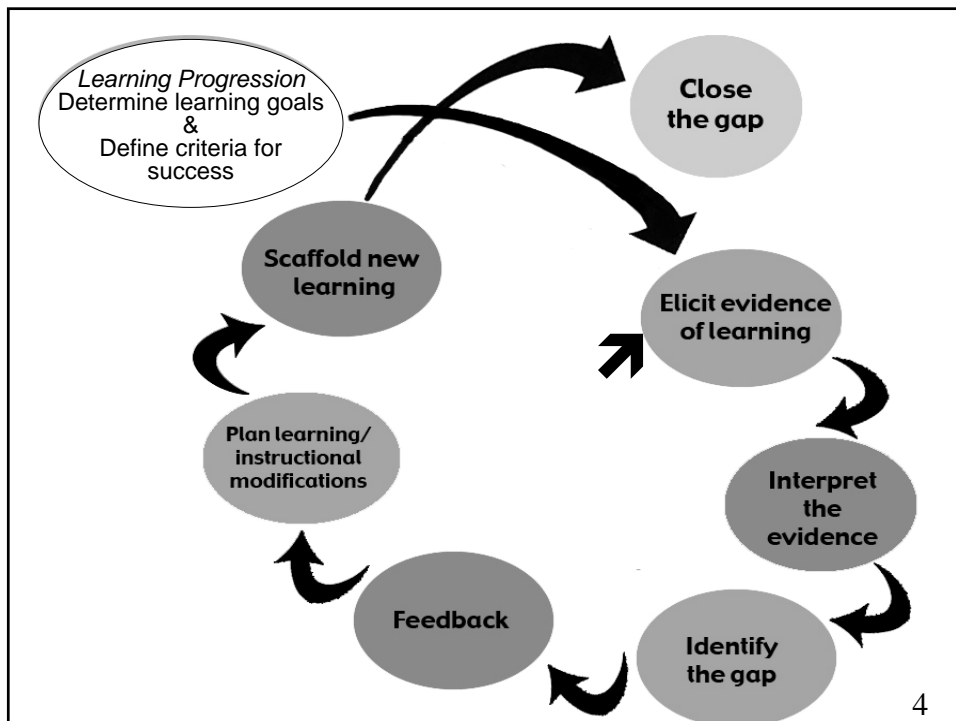
### Learning Goal:

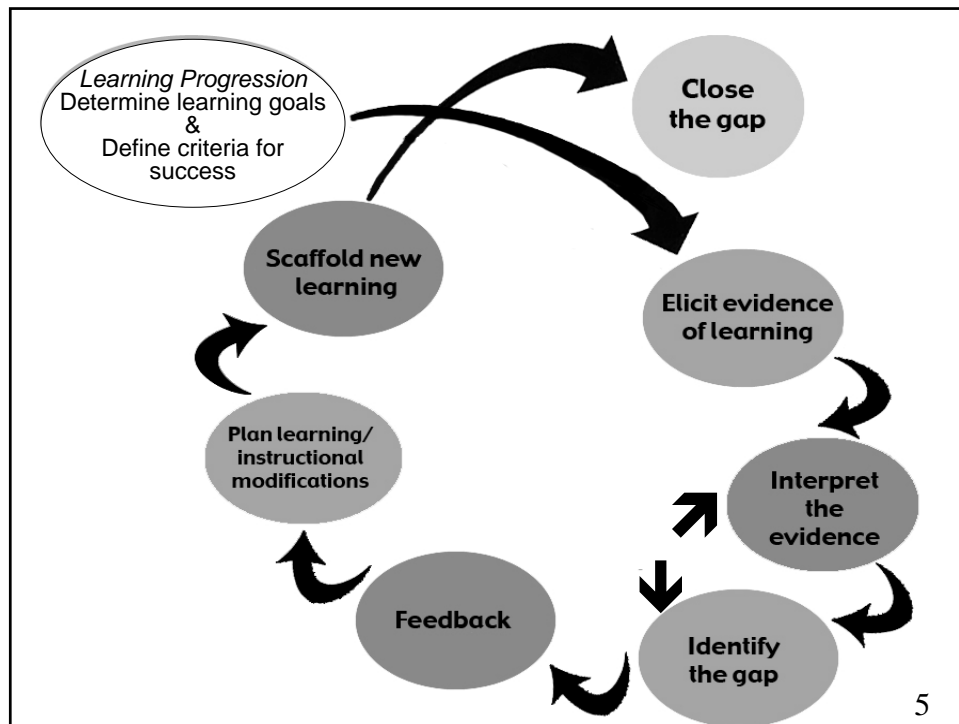
- *Understand the relationship between formative assessment and RTI*
- *Understand the zone of proximal development as it relates to the "gap" on formative assessment*
- *Differentiate instruction in response to formative assessment evidence*

### Success Criteria:

- *I can explain how formative assessment is related to RTI*
- *I can explain what the zone of proximal development is and how it relates to formative assessment*
- *I can determine appropriate instructional approaches to meet learners' needs based on formative assessment evidence*

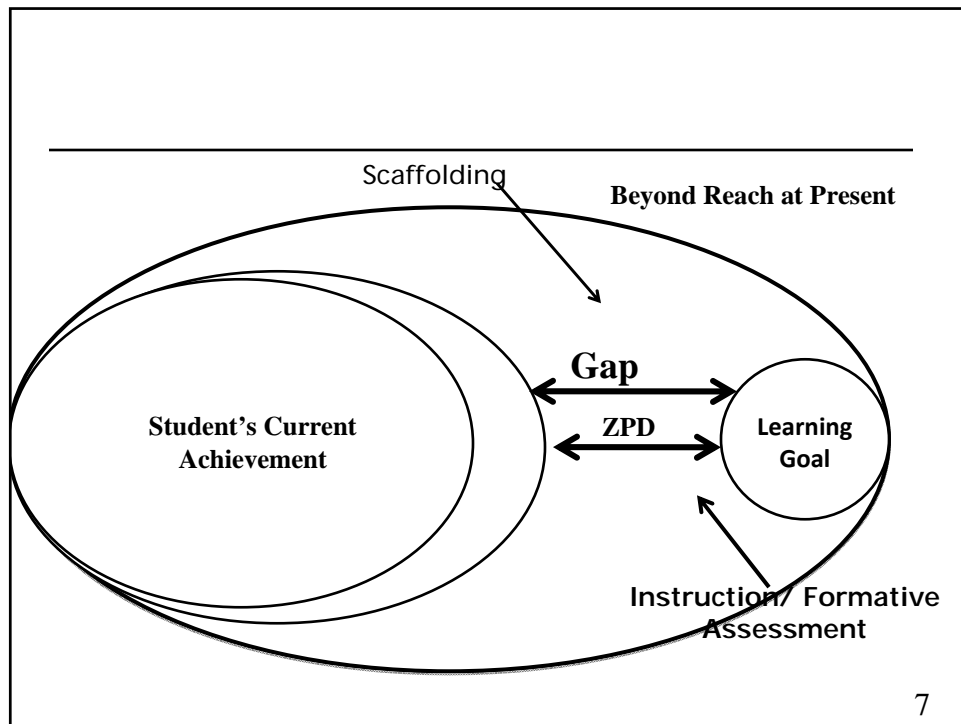
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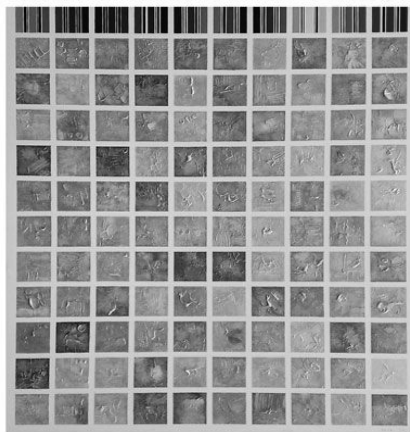
## Overview

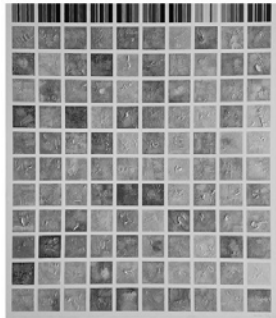
- ✓ *Formative Assessment and RTI: Michele Paine*
- ✓ *The Zone of Proximal Development*
- ✓ *Differentiation*
- ✓ *Examples of Formative Assessment and Differentiation:*
  - *Alejandra Santini*
  - *Gabriella Cardenas*
  - *Olivia Lozano*
- ✓ *Poll*



## Differentiation

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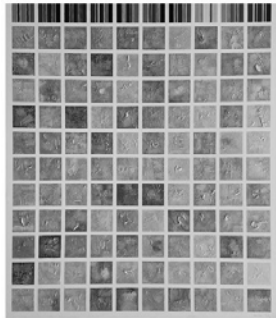
- Strategic whole class questioning
- Mini-lessons
- Individual conferences
- Flexible subgroups
- More frequent meetings with some subgroups
- Differentiation by task
- Differentiation by outcome
- Feedback

## **Black and Wiliam (1998)**

Each teacher must find his or her own ways of incorporating formative assessment practices into his or her own patterns of classroom work (p.10)

## Pictures of Practice

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- Planning for formative assessment
- Classroom climate
- Classroom management
- Classroom organization
- Matching instruction to the gap

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## Pictures of Practice

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- Alejandra Santini
- Gabriela Cardenas
- Olivia Lozano

**Para Los Niños Charter Elementary School,  
Los Angeles**

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## Alejandra Santini: First Grade

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## Our Context

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### ✓ *Our School*

❖ *Population*

❖ *Socio-economics*

❖ *Location*

### ✓ *Our Philosophy*

❖ *EVERY CHILD HAS POTENTIAL*

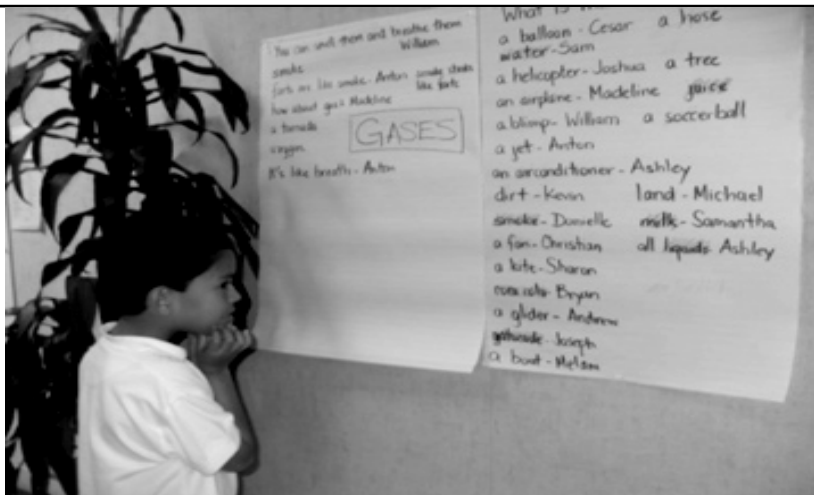
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# Foundations

- The environment as a teacher
- Creating community
- Fostering independence
- Differentiating instruction

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## The Environment as a Teacher



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## Creating Community



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## Fostering Independence

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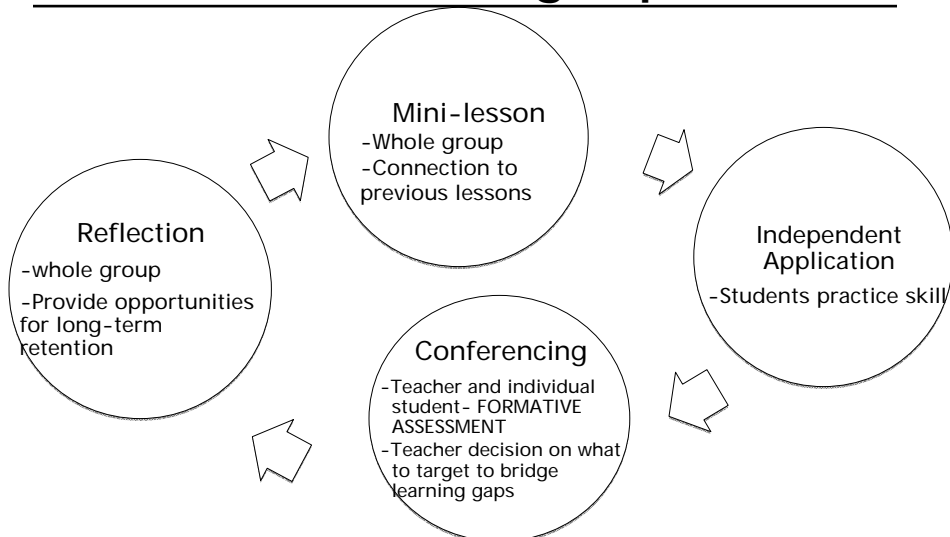
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## Differentiating Instruction



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## Structure of Learning Experiences



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## Learning Focus

**Big Idea:** Readers read to understand text

Learning Goal	Success Criteria
Relate prior knowledge to textual information.	I can make connections from the text to my life.
Retell the central ideas of simple expository or narrative passages.	I can retell a story.

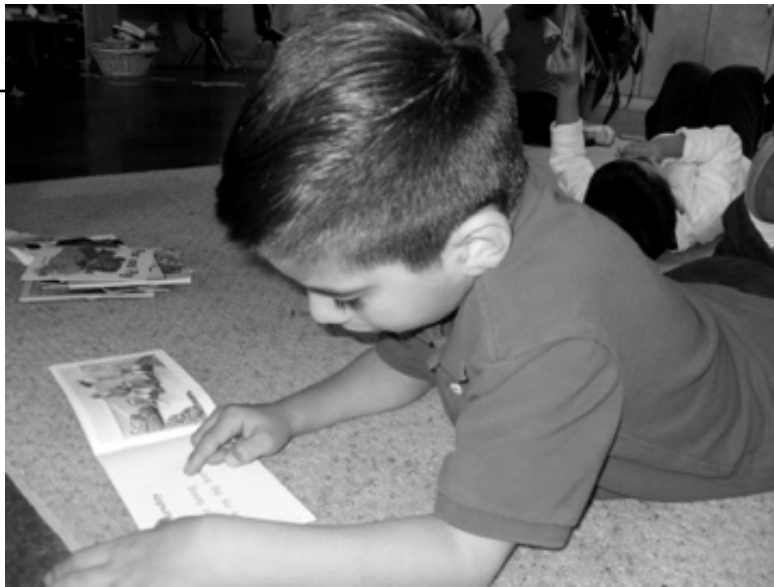
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## The Experience

**Big Idea:** Readers read to understand text.

Learning Goal	Success Criteria
Identify and describe the elements of plot, setting, and character(s) in a story, as well as the story's beginning, middle, and ending.	I can read the pictures to predict plot, setting and characters.
	I can use the pictures to help me figure out context.
	I can use pictures to confirm my predictions of words.

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## Key Moment

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- ✓ *Formative assessment*
  - ❖ *Teacher/student relationship*
  - ❖ *Listening and deciding*
  - ❖ *Praise*
- ✓ *Bridging learning gap*
  - ❖ *Student needs setting the agenda*

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## Gabriela Cardenas: 3<sup>rd</sup> Grade



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<b>Overarching Learning Goals</b> <b>Life Sciences <i>Big Idea: Adaptation</i></b> <b><i>Learning Goal and Success Criteria in a Series of Lessons</i></b>		
Learning Goal	Success Criteria	Formative Assessment Strategies
Adaptations in physical structure or behavior may improve an organism's chance for survival.  As a basis for understanding this concept: Students know that desert plants have structures that serve different functions in growth, survival, and reproduction. *  *CA State Standard	I can explain the different parts and functions of a desert cacti, the growth, survival and reproduction.	Student observation; teacher clipboard notes Student sketches Pair share discussion; teacher clipboard notes
	I can explain the different parts and functions of a desert succulent, the growth, survival and reproduction.	Student observation; teacher clipboard notes Student sketches Pair share discussion; teacher clipboard notes
	I can explain the differences and similarities between the desert cacti and the succulent, the growth, survival and reproduction.	Students will determine and record differences and similarities on different types of graphic organizers: T-Chart; Venn Diagram; compare sketches/drawings
	I can use the vocabulary to describe the physical structure and functions of desert plants, the growth, survival and reproduction.	In groups, student will create a representation of the desert plant structures, functions and their adaptation to the desert Students can determine how they will represent their understanding: Using materials for 3-D models with labels Create a diagram Use technology Using body movement Telling a story
	I can demonstrate and write about the physical structure of desert plants and how they function to survive in their environment.	Write a detailed explanation of how desert plants have structures that have adapted to survive in their environment.

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## Formative Assessment in a Series of Lessons

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### Guiding Questions:

- Start of a Series of Lessons:* Students will have the opportunity to observe, dissect, sketch and compare various desert cacti with spines. I would ask how might the spines be important to the desert cacti?
- Middle of Series of Lessons:* How does the desert plant retain water? Students will be given the opportunity to go back to their plants, sketches, observation notes to make their predictions.
- End of a Series of Lessons:* What are you noticing about the physical structure of the cacti? How does a desert cacti store water? How did adaptation play a critical role for the desert plant to survive?



## Observing, Sketching, and Questioning

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## Formative Assessment within a lesson in a series:

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Science Learning Goal	Success Criteria
Observe and sketch the spines of various types of desert cacti Barrel cacti Prickly pear Saguaro	I can sketch and identify different types of spines of various desert cacti
Describe the various types of spines of a desert cacti Hook spines Cross spines Straight spines	I can use the correct vocabulary to describe and write about the spines of a desert cacti
Understand the function of the spines of the desert cacti	I can describe and write about how a spine supports the survival of a cacti in the desert

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## Formative Assessment in a lesson in a series:

**What are the key misconceptions that you expect students may have about this topic?**

- Think that plants only store water in the roots
- Think that water would evaporate quickly in the exterior part of a plant because of the desert heat
- Think that spines solely protect the plant from foragers
- Not consider how the spines protect the plant from the effects of the sun
- Not consider how the spine might support the dispersal of water

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## Formative Assessment Within a Lesson:

**How I will gather evidence of learning in this lesson?**

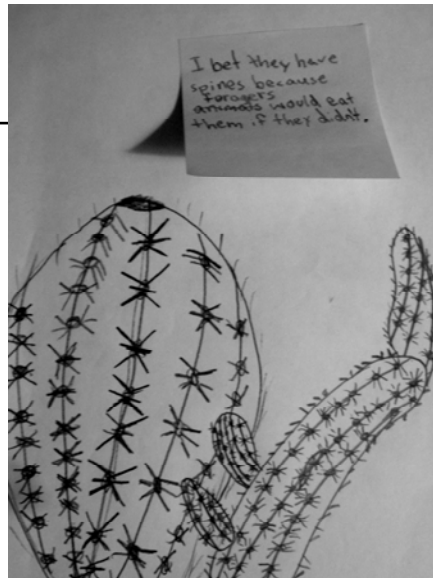
Start of lesson:	Middle of lesson:	End of lesson:
<p>Why might the spines be important to the desert cacti?</p> <p>Given several types of cacti, the students will observe, sketch, and share their observations and predictions with their partner. Pairs will write predictions on sticky notes.</p> <p>Teacher takes clipboard notes of student use of vocabulary, sketches and student predictions.</p>	<p>Teacher will have selected students share vocabulary, sketches and observations.</p> <p>Students will use sticky notes to gather their predictions as a group on a chart.</p> <p>Teacher will have students read predictions and will categorize as students see fit.</p> <p>Teacher will introduce text explaining the functions of the spines on a cacti.</p> <p>Partners will read text.</p>	<p>Students will gather and compare the text explanations to confirm or refute their predictions.</p> <p>Students must highlight the supporting details.</p> <p>Students will write detailed information of the functions of the spines of a desert cacti on an index card.</p> <p>These index cards will be joined to a ring as the various structures of the desert plant are studied.</p>

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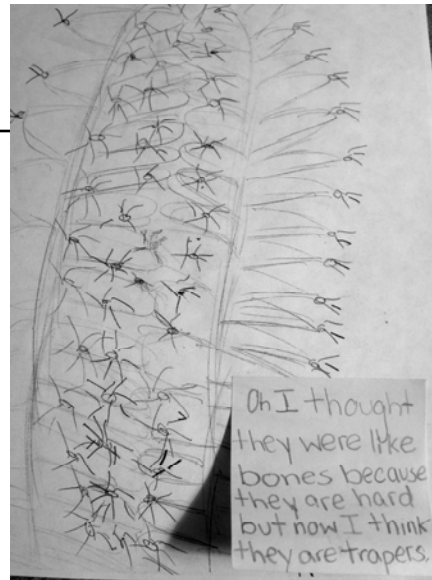
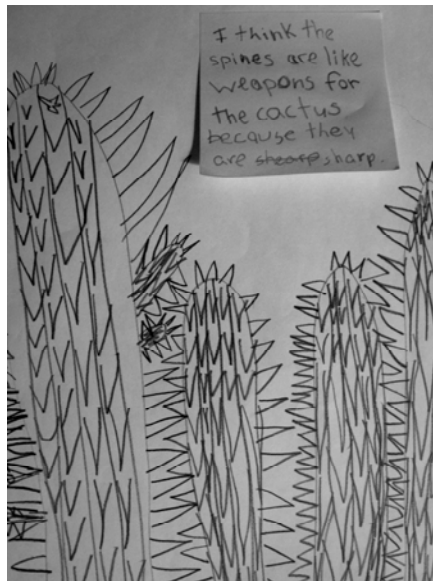
## Student observing small cactus



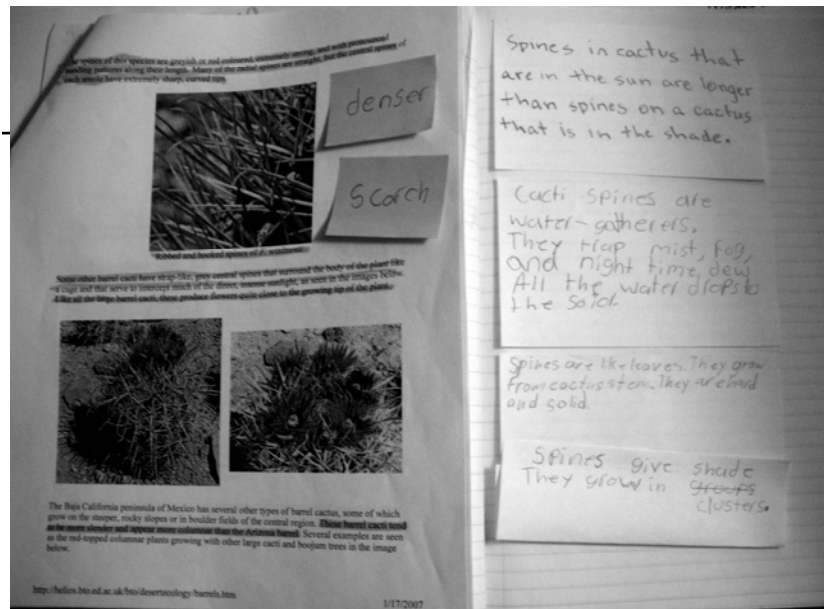
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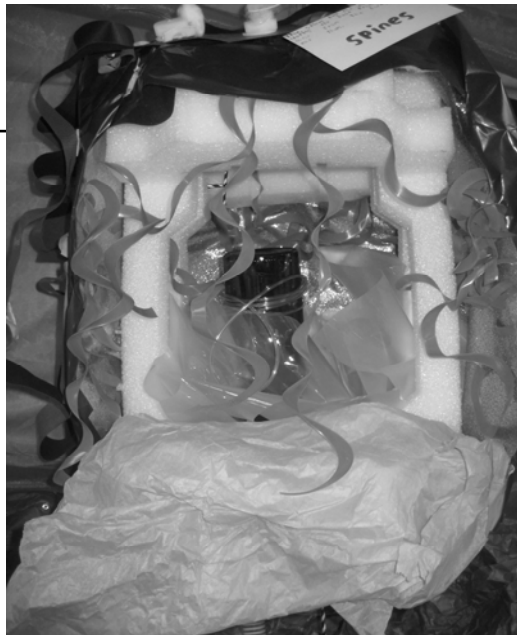
## **Formative Assessment throughout the series of lessons**

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**What other ways will I assess?**

- I will continue to pose questions to sharpen student observations to provide greater detail.
- Vocabulary check (accuracy); using Spanish cognates
- ELLs- grammar usage in practice
- Note taking
- Feedback to peer work
- Student teacher conferencing
- Representations

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## Olivia Lozano: 5<sup>th</sup> Grade

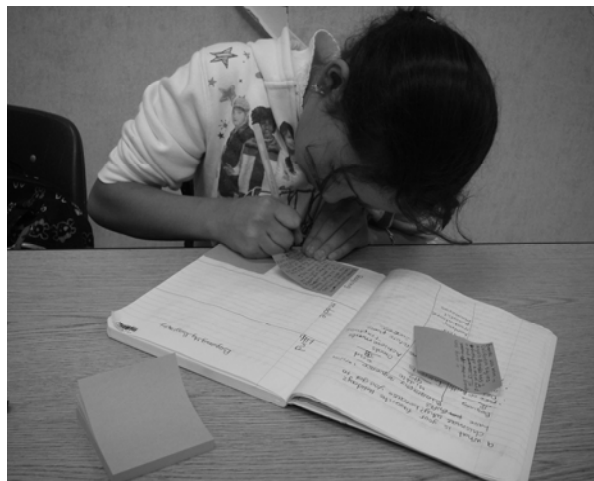
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## Classroom Culture for Formative Assessment

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## Environment

- The classroom is set up in such a way so that there are areas where children can work in small groups, large groups, and independently
- This environment supports the teachers ability to work individually with students and pull students for small group strategy lessons



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## Management Systems

- Materials are accessible so that students can access them without interrupting the teacher
- Resources are clearly displayed and accessible to support students in their writing
- Students have been taught and organized so that they rely on each other



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## Structures and Expectations

- Mutual respect helps students to take risks as writers, as well as accept and give suggestions
- The writer's workshop is a highly structured and highly predictable time in which children can carry on within it independently
- Signals make it easy to get the students attention for the mid-lesson interruption and for the sharing time at the end of the workshop



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## Formative Assessment in Writer's Workshop



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## Bridging Narrative and Expository Writing

- The narrative genre is a high interest genre that the students are very familiar with
- Writing a biography on someone they know and would like to learn more about helped to bridge the two genres



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<b>Overarching Learning Goals</b> <b>English Language Arts: Expository Writing - Biography</b>		
<b>Learning Goals</b>	<b>Success Criteria</b>	<b>Formative Assessment Strategies</b>
Create multiple-paragraph expository compositions	I can choose a person whom I would like to learn more about to write a biography	Teacher-student dialogue Student-student dialogue
	I can create interview questions and collect information	Teacher-student dialogue Student-student dialogue
	I can organize my information in a beginning, middle, and end sequence	Observation Teacher-student dialogue Student-student dialogue Whole class discussion
	I can use transitional expressions when writing my paragraphs	Observation Teacher-student dialogue Student-student dialogue Whole class discussion
	I can write a concluding paragraph to end my biography	Observation Teacher-student dialogue Student-student dialogue Whole class discussion

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## **Examples of Questions Asked During the Teacher-Student Dialogue**

During the conferencing time of the writer's workshop the teacher will circulate the class and meet with pre-selected students and ask some of the following open-ended questions:

- "What are you working on?"
- "How's it going?"
- "How is that working out for you?" (Regarding the application of a writing technique or strategy)
- "What have we learned so far that can help you as a writer?"

## **Examples of Questions Asked During the Student-Student Dialogue**

During the peer-conferencing time of the writer's workshop students will work together and have discussions about their writing. They ask each other questions such as:

- "What are you working on?"
- "Why did you choose that person for your biography?"
- "Do you think you need more information?"
- "Does this make sense?"
- "What can you do to fix that?"
- "Where can you look to find out how that word is spelled?"

## Formative Assessment: Informing Instruction

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- The “Sequence and Transitions” mini-lesson came after reading the students first rough draft
- Most of their sentences were basic and repetitive
- Their writing lacked complexity and flow



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## The Mini-Lesson

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- Genre: Expository Writing – Biography
- Learning Goal: Provide details and transitional expressions that link one paragraph to another in a clear line of thought.
- Mini-lesson: Sequence and Transitions. The students are presented with a list of transition phrases that are common and useful for maintaining a logical sequence for a biography. Some examples:
  - “In the early years of his/her life...”
  - “When \_\_\_\_\_ was a child...”
  - “When he/she was \_\_\_\_\_ years old...”
  - “Later in his/her life...”
  - “As he/she grew older...”
- Providing the sentence structure is especially helpful for ELLs

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## Conferring

- An opportunity to meet individually with students to offer feedback on their writing and provide on-the-spot instruction
- Provides an opportunity to affirm what students are doing well
- Helps the teacher to gather ideas for other mini-lessons or small group strategy lessons based on student need



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### Unit of Study Expository Writing Biography

Child's Name/ Date	Research/Compliment What strategies did I notice the child using independently?	Teaching Point What's the strategy I taught the child in today's conference?	What's Next for this Child? What strategies could I teach this child in the future?
Angel 10/13	Incorporated beginning line into his first paragraph	Time cue words	Complex sentence structures
Sandra	Incorporated many details to make writing interesting for the reader.	Complex clause connectors: however, while	Develop a concluding paragraph that summarizes important ideas and details
Eric	Organized his writing using B, M, & E sequence	reiterated today's TP: Transitional phrases	Complex sentence structures
Aaron	Working on organizing his writing in B, M, and E sequence	TP details make our writing more interesting to read	Will need to revisit TP: transitional phrases.
Kate 10/14	Obtained enough information to begin organizing it using Post-its [B] [M] [E]	reiterated today's TP which she will apply when she is done organizing	Complex clause connectors
Spacy	Same as above	↑	↑

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Unit of Study <u>Expository Writing - Biography</u>			
Child's Name/ Date	Research/Compliment What strategies did I notice the child using independently	Teaching Point What's the strategy I taught the child in today's conference?	What's Next for this Child? What strategies could I teach this child in the future
Edgar	Working on organizing information using Post-its	reiterated TP transitional phrases	Complex sentence structures
Joseph 10/15	low productivity working on selecting beginning line	Sequencing B M E	Transitional phrases
Anthony	Good details	reiterated TP transitional phrases	Complex sentence structures
Daniel Flores	Good sentence structure	Complex clause connectors	Develop a concluding paragraph that summarizes that summarizes important details
Isanna	Having difficulty following sequence	collecting commonly used high frequency words	beginning line
Fernanda (Spanish)	good details & sequence	Punctuation & Capitalization	paragraph structure

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## Table and Peer Conferences

- Keep the class as a whole productive because the needs of many children are addressed when conferring with only one child
- Students conference with one another and share helpful feedback that the teacher has given, as well as their own feedback. Also, Increases student independence



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## Next Steps

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- Whole group mini-lesson on developing an introductory paragraph with a “hook” to secure the reader’s interest
- Whole group mini-lesson on developing a concluding paragraph that summarizes important ideas and details

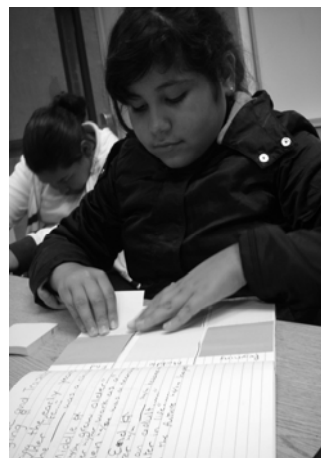


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## Next Steps Based on Formative Assessment

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- Whole class lesson on developing complex sentence structures
- Small group pull out lesson on complex clause connectors
- Small group pull out lesson to revisit transitional phrases



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## Poll: Check Your Learning

On a scale of 1-5 rate the degree to which you think you have met today's success criteria (1 is not at all – 5 is to a great extent):

- ☐ *I can explain how formative assessment is related to RTI*
- ☐ *I can explain what the zone of proximal development is and how it relates to formative assessment*
- ☐ *I can determine appropriate instructional approaches to meet learners' needs based on formative assessment evidence*

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## First Two Stages of Implementation

*Based on Fixsen et al. (2007)*

EXPLORATION	INSTALLATION
<b>Identifying the need for an intervention</b> <b>Acquiring information via interactions with one another</b>	<b>Active preparation for doing things differently</b>
<p>Participates in professional development</p> <p>Develops new pictures of practice (i.e. has a conception of formative assessment and is able to articulate how FA practice in differs from "what I am doing already."</p> <p>Is undecided about where to start/what to develop skill in first</p> <p>Based on experience, when teachers first learn about FA, they say "I am doing that already." In the exploration stage they should become more reflective and able to articulate points of convergence with their practice and what they are learning about and points of divergence.</p>	<p>Tries out one or more components of full implementation</p> <p>Does not use component consistently</p> <p>Is only able to focus on individual components of the formative assessment process, rather than implementing them as a whole to support learning</p>

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## Next Steps

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- What we are learning today is.....
- This is how you and I can check on your learning during the lesson.....

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